

CLAIMS

1. A process for the manufacturing of a decorative laminate having a base layer, a decorative layer and a wear layer wherein a decor is printed on a base layer wherein the decor printed comprises a printing ink and wherein the wear layer comprises a thermosetting resin selected from the group consisting of; melamine-formaldehyde resin, phenol-formaldehyde resin, urea formaldehyde resin and mixtures thereof, whereby an amount of amino resin is mixed into the printing ink in order to increase the bond between the decorative layer and the wear layer whereby the layers are laminated together in a laminate press under increased temperature and pressure.
2. A process according to claim 1 wherein the printing ink is an alkyde based ink.
3. A process according to claim 1 wherein the printing ink is a polyester-acrylate based ink.
4. A process according to claim 2 or 3 wherein the amino resin is a etherified amino resin.
5. A process according to claim 2 or 3 wherein the amino resin is a methylol amino resin.
6. A process according to claim 1 wherein the base layer is manufactured in the desired end user format and provided with edges intended for joining before applying decor and wear layer.
7. A process according to claim 6 wherein the main part of the base layer is constituted by a particle board or a fibre board.
8. A process according to claim 6 or 7 wherein the base layer is provided with a paper layer on which the decor is printed.
9. A process according to claim 8 wherein the paper layer is bonded to the base layer prior to the printing of the decor.

10. A process according to claim 1 wherein the wear layer is comprised of a high viscosity amino resin applied on top of the decorative layer prior to the lamination.
11. A process according to claim 1 wherein the wear layer is comprised of an amino resin / cellulose mixture.
12. A process according to claim 1 wherein the wear layer is comprised of one or more amino resin impregnated cellulose layer or layers.
13. A process according to any of the claims 10 - 12 wherein the wear layer also comprises hard particles with an average particle size in the range 50nm - 150µm.
14. A process according to claim 13 wherein the upper portion of the wear layer is provided with hard particles with an average particle size in the range 50nm - 30µm while the inner portion of the wear layer is provided with hard particles with an average particle size in the range 31 µm - 150 µm.
15. A process according to claim 13 wherein the hard particles is constituted by silicon oxide, silicon carbide, aluminium oxide or the like.
16. A process according to claim 1 wherein the wear layer is provided with a surface structure that enhances the realistic impression of the decor during or after the lamination.